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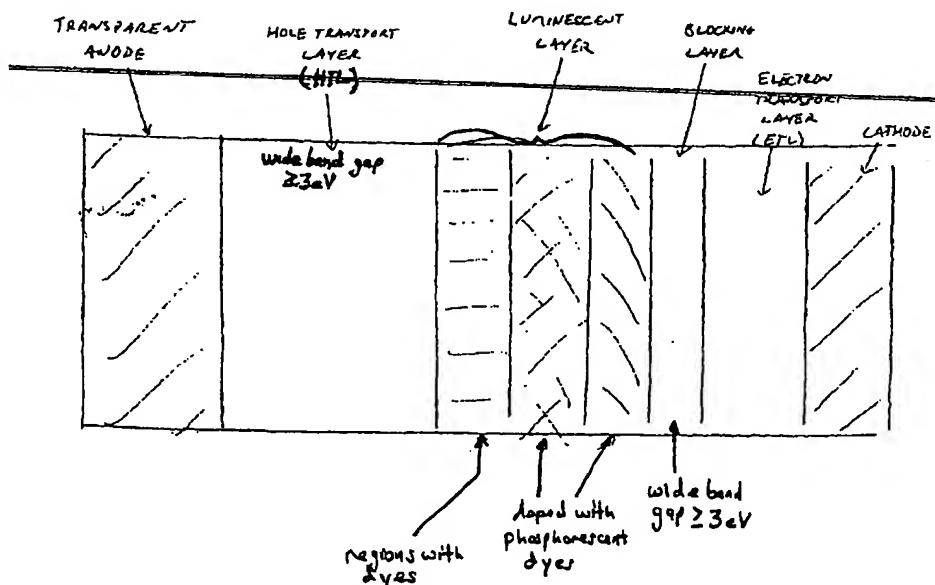
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[Continued on next page]

(54) Title: HIGH EFFICIENCY MULTI-COLOR ELECTRO-PHOSPHORESCENT OLEDs



(57) Abstract: The present invention relates to efficient organic light emitting devices (OLEDs) doped with multiple light-emitting dopants, at least one dopant comprising a phosphorescent emitter, in a thin film emissive layer or layers. The present invention is directed to an efficient phosphorescent organic light emitting device utilizing a plurality of emissive dopants in an emissive region, wherein at least one of the dopants is a phosphorescent material. Thus, the present invention provides an organic light emitting device comprising an emissive region, wherein the emissive region comprises a host material, and a plurality of emissive dopants, wherein the emissive region is comprised of a plurality of bands and each emissive dopant is doped into a separate band within the emissive region, and wherein at least one of the emissive dopants emits light by phosphorescence.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01J 1/62, 63/04

US CL : 313/504

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 313/504, 506, 503

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,837,391 A (UTSUGI) 17 November 1998 (17.11.1998), fig. 11; column 5, lines 20-41.	1-18
A	US 5,707,745 A (FORREST et al) 13 January 1998 (13.01.1998), fig. 2.	1-18

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier document published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed		

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